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EXAMINER

ART UNIT PAPER NUMBER

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**MAILED**  
NOV 20 2006  
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/645,827  
Filing Date: August 25, 2000  
Appellant(s): FLANDERS ET AL.

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NOV 16 2006  
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J. Grant Houston  
For Appellant

### **SUPPLEMENTAL EXAMINER'S ANSWER**

Pursuant to the remand under 37 CFR 41.50(a)(1) by the Board of Patent Appeals and Interferences (BPAI) on July 17, 2006 **for further consideration of a rejection**, a supplemental Examiner's Answer under 37 CFR 41.50(a)(2) is set forth below:

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-8 and 17-20.

Claims 9-16 are withdrawn from consideration as not directed to the elected invention.

**(4) *Status of Amendments After Final***

The appellants' statement of the status of amendments after final rejection contained in the brief is correct.

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**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellants' statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Appellants' brief includes a statement that claims 1-8 and 17-20 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

Wolfgang, "Flexible Automated Assembly of Micro-Optical Elements (Optical SMD)" SPIE, Vol. 2906. , Microrobotics: Components and Applications (December 1996), pp. 162-170.

attach. Dictionary.com. WordNet® 2.0, Princeton University.

<http://dictionary.reference.com/browse/attach> (accessed: November 15, 2006)

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**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

Claims 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the instant case, appellants have failed to disclose the identity of the corresponding structures that correspond to the means-plus-function limitations. That is, the corresponding structure is unclear to one of ordinary skill in the art reading the specification.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfgang (SPIE Vol. 2906, Microrobotics: Components and Applications). With respect to Claims 1 and 3-8, Wolfgang teaches a supply area (Figure 6, Stock); a pick and place machine that picks and places the components to the work area (abstract and Section 5, first paragraph); and an aligner that characterizes the positions of the components on the bench and mechanically adjusts the relative position (section 5.3, paragraphs 1-4); an aligner that activates/energizes a workpiece and detects an optical signal and adjusts the components (Section 5.3, Paragraphs 1-4 and Figure 9a,

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measuring system); and a two jaw gripper (Figure 9a, gripper). The examiner notes the structure of the optical system aligner is the gripper and the optical detector to detect the optical signal (see section 5.2). This limitation is taught by Wolfgang as Wolfgang teaches a noptical signal, and optical detector to detect the optical signal and the jaws (see section 5.2-5.3). It is the examiner's position that how the system operates is a process limitation that holds little patentable weight in an apparatus claim. That is, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claims 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfgang (SPIE Vol. 2906, Microrobotics: Components and Applications), where dictionary.com shows the definition of "attached". With respect to Claims 17, 19, and 20, Wolfgang teaches a supply area (Figure 6, Stock); a pick and place machine that picks and places the components to the work area (abstract and Section 5, first paragraph); and an aligner that characterizes the positions of the components on the bench and mechanically adjusts the relative position (section 5.3, paragraphs 1-4); an aligner that activates/energizes a workpiece and detects an optical signal and adjusts the components (Section 5.3, Paragraphs 1-4 and Figure 9a, measuring system); and a two jaw gripper (Figure 9a, gripper). It is the examiner's position that how the pick and place machine operates is a process limitation that holds little patentable weight in an apparatus claim. With respect to Claims 18, the teachings of Wolfgang are the same as relied upon in the rejection of Claim 17. Wolfgang teaches laser welding (abstract and Figure 4, laser). It is the

examiner's position that how the components are secured are process limitations that hold little patentable weight in an apparatus claim.

**IF IT IS FOUND THAT THE INTENDED USE LIMITATIONS OF CLAIMS 1-8 MUST  
BE FOUND IN THE PRIOR ART, THEN THE FOLLOWING REJECTION APPLIES:**

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfgang (SPIE Vol. 2906, Microrobotics: Components and Applications), where dictionary.com shows the definition of "attached". With respect to Claims 1 and 3-8, Wolfgang teaches a supply area (Figure 6, Stock); a pick and place machine that picks and places the components to the work area (abstract and Section 5, first paragraph); and an aligner that characterizes the positions of the components on the bench and mechanically adjusts the relative position (section 5.3, paragraphs 1-4); an aligner that activates/energizes a workpiece and detects an optical signal and adjusts the components (Section 5.3, Paragraphs 1-4 and Figure 9a, measuring system); and a two jaw gripper (Figure 9a, gripper). The examiner notes the structure of the optical system aligner is the gripper and the optical detector to detect the optical signal (see section 5.2). This limitation is taught by Wolfgang as Wolfgang teaches an optical detector to detect the optical signal and the jaws (see section 5.2-5.3).

The examiner notes that the claim 1 limitation "which have been attached" modifies only the first clause "characterizes the positions of the optical component." Because of this, the second clause "mechanically adjusts the relative positions of the optical components" can occur before the attachment limitation. In particular, the examiner notes the phrase "which have been attached" is placed immediately after the first clause and separated by commas, which indicates

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that the phrase modifies only the preceeding first clause. Second, because the coordinating conjunction "and" separates the the sentence into two distinct clauses, the phrase "which have been attached," which is located in the the first clause, modifies only the first clause.

The examiner interprets the optical system aligner (see specification pp. 25-26) to be the jaws, optical signal, and the detector. Wolfgang teaches in section 5.3 on pages 166-67 a two step process in which a first optical component (lens) is roughly positioned on a mounting plate and attached by welding and then a second optical component (laser diode) is roughly positioned on the mountin gplate and further positioned relative to the lens by shining a collimated beam through the lens. It is the examiner's position that the first optical component (lens) is mechanically adjusted during the initial rough positioning and its position characterized during the detection of the collimated beam shining through the lens during the positioning of the second optical component (diode). This characterization of position occurs after the first optical component (lens) is welded to the mounting plate (bench) . With respect to Claim 2, the teachings of Wolfgang are the same as relied upon in the rejection of Claim 1. Wolfgang teaches laser welding (abstract and Figure 4, laser). It is the examiner's position that how the components are secured are process limitations that hold little patentable weight in an apparatus claim.

**(11) Response to Argument**

With respect to the BPAI's request (see Remand to the Examiner, page 3) that the Examiner determine whether the phrase "which have been attached" in claim 1 modifies either the first clause or the first and second clause, it is the examiner's position that the phrase "which



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have been attached" modifies only the first clause because of the phrase's arrangement in the sentence structure.

In particular, the examiner notes the phrase "which have been attached" is placed immediately after the first clause and separated by commas, which indicates that the phrase modifies only the preceeding first clause. Second, because the coordinating conjunction "and" separates the the sentence into two distinct clauses, the phrase "which have been attached," which is located in the the first clause, modifies only the first clause.

With respect to the BPAI's request (see Remand to the Examiner, page 4) to reevaluate the meaning of "attached," the examiner understands that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification." Id.

In the instant case, it is the examiner's position that one of ordinary skill in the art would interpret this term in light of the specification to mean "to be in contact with" as found in dictionary.com. This interpretation is consistent with Phillips in that the claim is given its broadest reasonable construction in light of the specification. Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005). In the instant case, appellants have not defined the term "attached." Appellants, in their arguments, urge that the examiner construe "attached" to

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mean "welded." The examiner cannot agree because, while attached could be construed to mean welded, this interpretation would not be the broadest reasonable interpretation in light of the specification.

With respect to the BPAI's request (see Remand to the Examiner, page 5) to consider how the functional clauses as a whole limit the optical system aligner structure, the examiner interprets the optical system aligner (see specification pp. 25-26) to be the jaws and a detector to detect the optical signal.

With respect to the BPAI's request (see Remand to the Examiner, page 9) to point out where Wolfgang discloses structure that performs the claimed function. With respect to the claim 17 limitation of "means for characterizing the positions of the optical components attached to the optical benches," Wolfgang discloses (see Wolfgang, section 5.2) a reference collimated laser beam and an optical sensing that performs, which characterizes the positions of the optical components attached to the optical benches. Second, the examiner finds the system in Wolfgang functions in substantially the same way as the bonding system in Appellants' invention. In Appellants' invention, a laser and corresponding laser detector, which operates after bonding, is used to determine whether the component is properly aligned. (Appellants' specification, page 26, first paragraph and see generally Appellants' specification, page 19, fourth paragraph). In Wolfgang et al., a laser and corresponding laser detector, which operates before bonding (Wolfgang et al., section 5.2, ll. 3-5), is used to determine whether the component is properly aligned (Wolfgang et al., section 5.3, second full paragraph). While it is true that the characterizing system of Wolfgang does not function in exactly the same way as the characterizing system in the instant case, the examiner finds that the two systems still meet the

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test for equivalence under 35 U.S.C. 112, sixth paragraph as they both still function in substantially the same way. That is, it is the examiner's position that merely because Appellants' system operates after the bonding step while the Wolfgang system operates prior to bonding step does not overcome the substantial similarities of the two systems function, namely using a laser and corresponding laser detector to determine when an optical component is aligned on an optical bench (compare Appellants' specification, page 26, first paragraph and see generally Appellants' specification, page 19, fourth paragraph to Wolfgang et al., section 5.2, ll. 3-5 and section 5.3, second full paragraph). Lastly, the examiner finds that the characterizing system of Wolfgang produces substantially the same result as the characterizing system in the instant case, namely the sub-micron alignment of the optical component to the optical bench. The examiner would like to point out that Appellants have not provided any objective evidence showing how using a laser detector after bonding rather than prior to bonding would produce a different result. Appellants only argue that it would be difficult to achieve sub-micron alignment accuracies using the Wolfgang system (Appellants' brief, page 4, first paragraph). This is not enough to establish that the characterizing system of Wolfgang does not give the same results as the characterizing system of the instant application. Arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). In any event, the examiner would like to point out that Wolfgang specifically teaches that its system can reliably provide sub-micron alignment accuracies (Wolfgang et al., section 7, lines 3-4).

With respect to the claim 17 limitation of "means for. . . mechanically adjusting the relative positions of the optical components attached to the benches," Wolfgang discloses (see Wolfgang, section 5.2) jaws that grasp the alignment structure and manipulates it until the laser

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signal is maximized and then maintains its grasp during welding, which mechanically adjusts the relative positions of the optical components attached to the benches. Second, the examiner finds the system in Wolfgang functions in substantially the same way as the bonding system in Appellants's invention. Appellants' invention involves using jaws that grasp the alignment structure, after it has been bonded to the bench, and manipulates it until an optical laser signal is maximized (Appellants' specification, page 26, first paragraph and see generally Appellants' specification, page 19, fourth paragraph). Wolfgang uses jaws that grasp the alignment structure, prior to bonding, and manipulates it until the laser signal is maximized and then maintains its grasp during welding (Wolfgang et al., section 5.2 and figure 8c). While it is true that the adjusting system of Wolfgang does not function in exactly the same way as Appellants' system, the examiner finds that the two systems still meets the test for equivalence under 35 U.S.C. 112, sixth paragraph they still function in substantially the same way. That is, it is the examiner's position that merely because Appellants' system operates after the bonding step while Wolfgang's system operates prior to and during the bonding step does not overcome the substantial similarities of the two systems function, namely using a gripper to compensate for the misalignment of the optical component (compare Appellants' specification, page 26, first paragraph to Wolfgang et al., section 5.2, ll. 3-6 and figure 8c). Lastly, the examiner finds that the system of Wolfgang produces substantially the same result as the Appellants' system, namely the sub-micron alignment of the optical component to the optical bench. The examiner would like to point out that Appellants have not provided any objective evidence showing how using a laser detector after bonding rather than prior to bonding would provide a different result. Appellants only argue that it would be difficult to achieve sub-micron alignment accuracies

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using Wolfgang's system (Appellants' brief, page 4, first paragraph). This is not enough to establish that the system of Wolfgang does not give the same results as Appellants' system.

Arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). In any event, the examiner would like to point out that Wolfgang specifically teaches that its system can reliably provide the same results as Appellants' system, namely sub-micron alignment accuracies (Wolfgang et al., section 7, ll. 3-4)

For the above reasons, it is believed that the rejections should be sustained.

### ***Conclusion***

Appellants must within **TWO MONTHS** from the date of the supplemental examiner's answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the rejection for which the Board has remanded the proceeding:

(1) **Reopen prosecution.** Request that prosecution be reopened before the examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit, or other evidence. Any amendment, affidavit, or other evidence must be relevant to the issues set forth in the remand or raised in the supplemental examiner's answer. Any request that prosecution be reopened will be treated as a request to withdraw the appeal. See 37 CFR 41.50(a)(2)(i).

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. If such a reply brief is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened under 37 CFR 41.50(a)(2)(i). See 37 CFR 41.50(a)(2)(ii).

Extensions of time under 37 CFR 1.136(a) are not applicable to the **TWO MONTH** time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

A Technology Center Director or designee has approved this supplemental examiner's answer by signing below:

Respectfully submitted,



Jonathan Johnson  
Examiner  
Art Unit 1725

jj

November 15, 2006

Conferees

Pat Ryan - S.P.E., Art Unit 1725



William Krynski - S.P.R.E., TC 1700



Greg Mills - TC 1700 Director's designee

